



AUGUST, 1983

# The I/O Connector

The Newsletter of the San Diego Atari Computer Enthusiasts

## PRESIDENT'S REPORT

I am glad to be back in the US, even thou I had an interesting time in the Orient. While in Japan I saw many different computers. Floors and floors of them. Both personal and home. All were more expensive than our ATARI's. I didn't have time to look at each one but I don't think any of them had the graphic capabilities that the ATARI has.

I haven't been home long enough to have anything to report on. We will try to have the light pen demo at the next meeting as well as Computer Control Center's new 80 column terminal program. Advance viewing indicates that it will be an outstanding terminal program.

Those of you that subscribed to ANALOG and haven't received your copy yet here is an 800 number to call. 1-800-345-8112. TOLL FREE. Your subscription was sent in Jan. 1983.

The board voted to make a change in the Constitution subject to the memberships approval. Article III, Section B of the By-Laws states: Any person joining after October 1st, shall be considered paid up for the next calender year. The proposed change is: Any person joining after July 1st shall pay one-half the yearly dues.

Thats all for now. See you at the next meeting.

## EDITOR'S OUTPUT

The editor is on vacation this month so your president is attempting to edit the newsletter. Have a good time Dave. Come back soon!

## SECRETARY'S REPORT

Officer, officer, who has the officer?

That's what it was like at July's meeting! Dick was in the Orient, Tony was working at the globe, Chuck had business to attend to, (No, he wasn't in Hawaii). All that was left were Paul, Dave and myself!

Paul opened the meeting at 6:40 with the announcement that our scheduled speaker was not able to make it, but, we did have Chris Crawford, (in video-tape form), as a substitute. We showed the Atari "Crawford Tapes" #1, 2 and 3. Each dealt with an aspect of the special hardware and software in the ATARI. Many of the techniques described were shown working in some popular ATARI games. Thanks to the Atari Users Support Group for providing this special treat.

## INSIDE

SOFTWARE REVIEWS  
BASIC PROGRAMS  
CROSSWORD PUZZLE  
CALENDAR  
BBS NUMBERS  
BEST BUYS

GRAPHICS  
ANNOUNCEMENTS  
PROGRAM GUIDE  
OFFICERS' REPORTS  
NOTICES  
BUY/SELL/TRADE

# COMPUTER WORKSHOP

## MORE BASIC: Program Compaction

After reading my article on using POKE 85 for TAB(x), Buck decided that this method would be better than the commas and spaces he was using in a program he has been working on. So, he went and changed all of his commas, etc. to POKE 85s and noticed a dramatic increase in the speed the menus displayed on the screen. He also noticed that it added another 10 sectors to the program on file, (that's about 1.25K). So what he gained in speed and clarity, he lost in memory.

Why? Well it has to do with how a BASIC program is stored in memory. When Buck said:

```
? ,,"Price "
```

He used 1 byte for the "?", 2 bytes for the commas, 2 bytes to signal a string constant and its length, and another 6 for the string itself, for a total of 11 bytes.

### SAN DIEGO ATARI COMPUTER ENTHUSIASTS

is an independent, nonprofit organization and user's group with no connection to ATARI Corporation, a Warner Communication Company. Membership fees are currently \$10.00 annually from January 1983 to January 1984. Membership includes free access to the computer program library, subscription to "The I/O Connector", and classes, when held. Permission to reprint articles in any noncommercial publication is permitted, without written authorization, as long as proper credit is given.

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c/o David Schultz - Editor  
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#### MAIN LIBRARY

7:30 p.m. to 9:00 p.m. (Monday through Thursday)

#### BULLETIN BOARD

SDACEBBS - 9 p.m. to 4 a.m.  
(619) 447-8143

#### SUBMISSIONS TO THE NEWSLETTER

are rare, because generally nobody gets up off their duff to sit down at the keyboard and produce ideas, opinions, reviews or anything of even the slightest interest to the group. When received, they cause the editor to turn inside out with happiness. Deadline is the 28th of the month. Thanks.

When he changed it to:

```
POKE 85,19: ? "Price "
```

He used:

1 byte for the POKE command  
7 bytes for the constant 85  
7 bytes for the constant 19  
1 byte for the colon  
1 byte for the "?"  
2 bytes to signal a string  
constant and its length  
6 bytes for the string  
-----

25 bytes total

Meaning he lost about 14 bytes every time the substitution was made. That adds up FAST!

How can we work around this? well, a good part of the overhead is in the use of literal constants like 85 and 19. A literal takes up 1 byte to say that a literal is coming up, and another 6 to represent it in floating point notation. Variables, on the other hand use only two bytes. One to say the next thing is a variable, and another to tell which variable it is. The idea here is to create variable constants.

No, that's not a contradiction in terms. It means that we are going to put a number in a variable and not change it. This is a good idea for any number that you use alot within a program. (It is usually cost efficient if the number is used more than 6 times, as a rough rule of thumb. Less than that is not, for reasons that I can't go into here.)

Here's how Buck can save 12 bytes:

Assuming that 19 is used several times, (We know that 85 is!), we will do the following at the beginning of our program:

```
50 N0=0:N1=1:N19=19:N85=85
```

(Buck uses the numbers 0 and 1 alot in his program, I'm sure!) And now we can say:

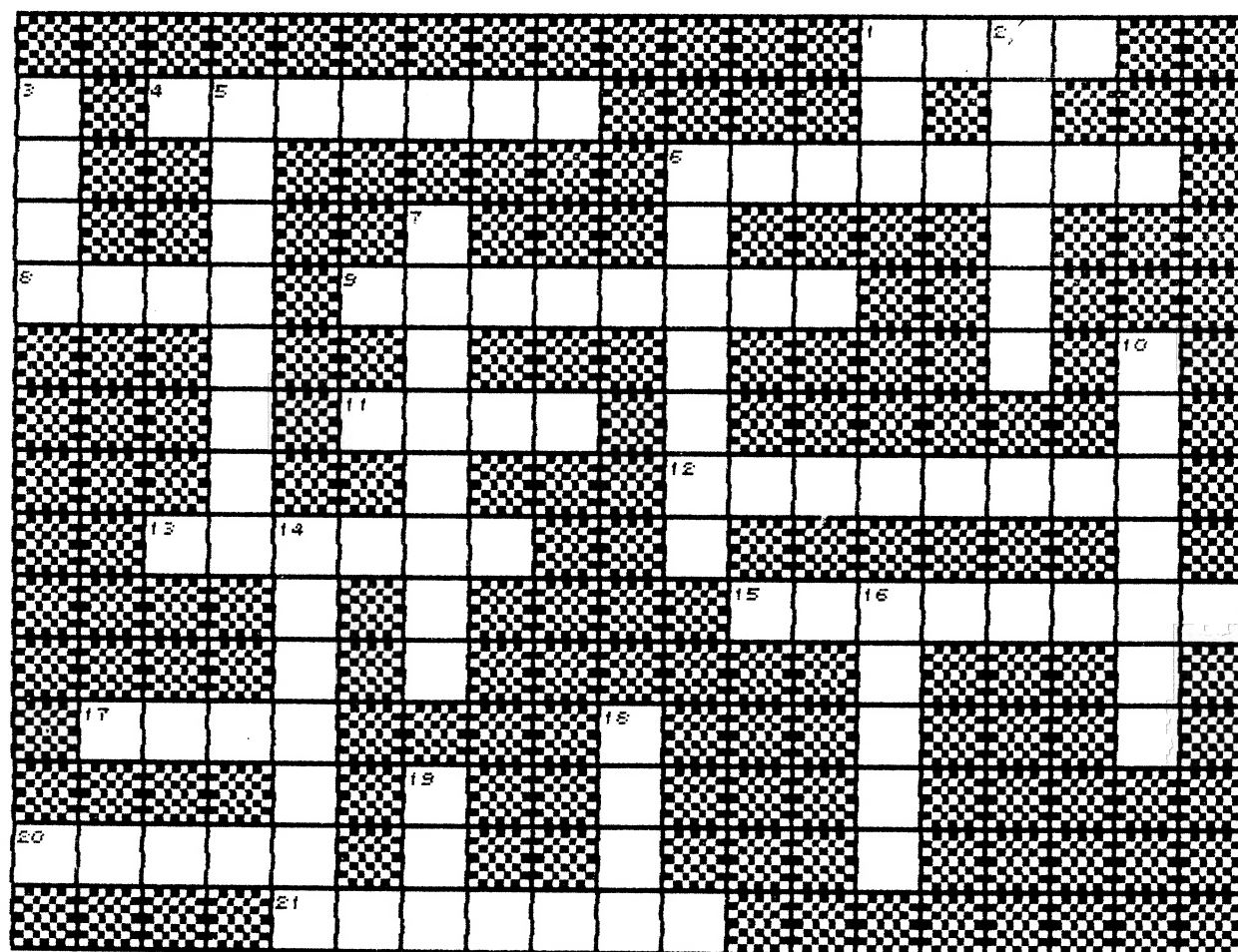
```
POKE N85,N19: ? "Price "
```

which takes up 14 bytes, just 3 more than when we started.

Now Buck has his speed AND he gets his 10 sectors back, (because he changed ALL the constants that were used more than 5 or 6 times to variable constants).

I have used this method to take a 38K program down to 26K in about 45 minutes. It's actually quite fun, searching out all those evil constants!

# SUMMER TIME



## ACROSS CLUES

1. TO TAKE A BREAK FROM TOIL.
4. SPORT INVOLVING WATER.
6. SUMMER SPORTS PASTTIME
8. ANOTHER SUMMER SPORT
9. COOKING OUTSIDE
11. ONE OF THE SEASONS
12. SUMMER COOLER
13. PORTABLE MEAL
15. LARGE MEETS, USUALLY FOR MUSIC
17. SUMMER WATER SPORT
20. OPPOSITE OF OLDER
21. WHAT CAN HAPPEN IF YOU STAY OUT TOO LONG.

## DOWN CLUES

1. CORNED-BEEF ON-----.
2. FALL, SPRING, SUMMER, ETC.
3. WILD PARTY
5. WATER SPORT
6. MEANS OF TRANSPORTATION
7. WHAT MOST PEOPLE DO IN THE SUMMER
10. SUMMER DRINK
14. WHAT SUMMER DRINKS ARE KEPT IN
16. OPPOSITE OF ALWAYS
18. OPPOSITE OF UNDER
19. WHAT SOME BLONDS WISH FOR

# Paul Caesar's BEST BUYS

The dog days of August are here, further melting home computer prices. I have seen the Atari 400 selling for \$70 less a \$50 rebate; and the 1200 for \$289 less an \$100 rebate. And it is possible to buy the Timex computer for as low as \$34 - unbelievable! As I spot these bargains, I will try to enter messages on our BBS at 447-8143. I cannot guarantee any info I leave on the BBS, because stores are changing their prices daily.

A low-priced store which is now carrying the complete Atari line is ANA Discount Photo and Appliance, 4427 Ranier Ave., phone 283-2368. They did have a very low price on the 1200 and their other prices are very reasonable. Consumer Computer and On Line in La Mesa have both discontinued the Atari line, but do have a few bargains in Atari software.

This month is a reprint of local sources for Atari hardware, software, and related items (disks, paper, ribbons, etc.). The department stores are carrying a fuller line of Atari software, but the computer related stores have more knowledge and selection. The HARD-SOFT column shows the kinds of merchandise carried or service given. The DISCOUNT column gives a general idea of the size of the discount given and whether the store will give a discount with your ACE membership card.

Once again, none of the places listed are endorsed by myself or SDACE. You are free to pick any retailer you feel comfortable with. My advice is to ask around the club to find out which are helpful and reliable. Anyone wishing to make corrections or additions can send mail to: Paul Caesar, 377 Fashion Valley, San Diego, CA 92108. Enjoy this month - hope to hear from some of you.

ABC PRODUCTS	8868 CLAIREMONT MESA BL. S.D.	268-3537	SUPPLIES	NO	LOW PRICES-DISKS-CASSETTES-ETC
ANA DISCOUNT PHOTO	4427 RANIER AVE. S.D.	283-2368	BOTH	BIG	WATCH FOR SPECIALS
APPLE COUNTRY	PO BOX 1099 JULIAN, CA 92036	765-0239	BOTH	25-30%	MAIL OR PHONE ORDER
ARDAN	880 ARNELE AVE. E.C.	579-7722	BOTH	10-15%	ATARI 400 & SOFTWARE
ATV	8464 COMMERCE AVE. S.D.	578-5516	REPAIR	NO	REPAIR OF 400, 410, 800, & 810
B. DALTON BOOKS	ALL LOCATIONS	SEE BOOK	BOOKS	NO	SOFTWARE AT MISSION VALLEY
BEST PRODUCTS	7938 EL CAJON BL. L.M.	698-7244	BOTH	10-15%	ATARI 400 & SOFTWARE
COMPUTER AGE	4688 CONVOY DR. S.D.	565-4042	BOTH	10-15%	ATARI 800 & 400
COMPUTER CONTROL CNTRL	5005 CASS ST. P.B.	273-5005	BOTH	5-25%	REPAIR AND CONSULTING
COMPUTER KONTROL	10761 WOODSIDE SANTEE	448-9240	SUPPLIES	LOW PRICES	RIBBONS DISKS AND SUPPLIES
COMPUTER THINK TANK	3947 GOVERNOR DR. S.D.	457-0677	BOTH	10-25%	VERY HELPFUL
DIMENSIONAL SOFTWARE	3954 CLAIREMONT MESA BL. S.D.	275-4243	BOTH	NONE	LARGE SELECTION OF SOFTWARE
DISCOUNT DEPOT	PRICE BAZAAR 1440 BROADWAY C.V.	691-1284	BOTH	15-20%	ATARI 800 & 400
DISNEY ELECTRONICS	4341 TWAIN AVE. S.D.	281-0285	BOTH	5-30%	CARDADDING MORE SOFTWARE
EQUINE COMPUTING	PO BOX 784 BONITA	479-6253	EVE	BOTH	COST+10% ALL ATARI PRODUCTS
FEDCO	1725 N. EUCLID S.D.	262-2411	BOTH	GOOD	BIG SELECTION-LOW PRICES
FEDERATED GROUP	3146 SPORTS ARENA BL. S.D.	223-5301	BOTH	WILL DEAL	SHOW LOW PRICE- ASK TO BETTER
GEMCO	ALL LOCATIONS	SEE BOOK	BOTH	NO	-
INFOTAINMENT COMPUTERS	2576 N. EL CAMINO REAL ENCIN.	436-0693	BOTH	20% W/CARD	NORTH COUNTY
JC PENNEYS	MOST LOCATIONS	SEE BOOK	BOTH	NONE	WATCH FOR SALES!
KIRK PAPER	9737 AERO DR. S.D.	268-3282	SUPPLIES	NO	LOW PRICES-PAPER-LABELS-ETC
MAILCOMP	9434 CHESAPEAKE S.D.	277-8002	BOTH	20-25%	VERY HELPFUL
MAY CO	MOST LOCATIONS	SEE BOOK	BOTH	NO	ATARI 800, 400 & ACCESS.
PACIFIC STEREO	ALL LOCATIONS	SEE BOOK	BOTH	10-15%	WATCH PAPER FOR SALES
RIBBONS UNLIMITED	4476 30TH STREET S.D.	280-0328	RIBBONS	NO	GOOD RIBBON PRICES-NICE PEOPLE
SEARS	MOST LOCATIONS	SEE BOOK	BOTH	NONE	-
SIERRA NATIONAL CORP.	5837 RUFFNER ST. S.D.	277-4810	BOTH	10-15%	ATARI REPAIR STATION
SOFTWARE CENTRE INT.	4170 CONVOY ST. S.D.	576-1424	SOFT	NONE	GOOD SELECTION-MAGS-BOOKS
SOFTWARE ONLY	8199 CLAIREMONT MESA BL. S.D.	569-1666	SOFT	NONE	GOOD SELECTION
SOFTWARE CENTRE	5232 JACKSON DR. L.M.	462-3900	SOFT	10% W/CARD	DISCOUNT AT THIS LOCATION ONLY
SOUTHLAND COMPUTER SYS	6972 UNIVERSITY AVE S.D.	286-6262	BOTH	10-15%	PREVIOUSLY A.S.C.
SUPER CITY	ALL LOCATIONS	SEE BOOK	SUPPLIES	-	LOW PRICES-DISKS-PAPER
TARGET STORES	ALL LOCATIONS	SEE BOOK	BOTH	NO	ATARI 400, 800 & ACCESS.
THE BROADWAY	ALL LOCATIONS	SEE-BOOK	BOTH	NO	ATARI AND RELATED PRODUCTS
THE COMPUTER STORE	209 3RD AVE. C.V.	619-422-6785	BOTH	5-30% CARD	ALSO SEE DISNEY ELECT.
TOYS-R-US	ALL LOCATIONS	SEE-BOOK	BOTH	15-20% OFF	ATARI 400 AND SOFTWARE ONLY
VIDEO CONCEPTS	ALL LOCATIONS	SEE BOOK	BOTH	NO	ATARI 800 & 400

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## BASIC BASICS

### Beginner's Column

I've been asked once again to give my annual lecture on converting Microsoft strings to Atari 8K strings, so here it is:

Microsoft	Atari
-----	-----
LEFT\$(A\$,X)	A\$(1,X)
MID\$(A\$,X,Y)	A\$(X,X+Y-1)
RIGHT\$(A\$,X)	A\$(L-X+1) A\$(L-X+1,L) A\$(LEN(A\$)-X+1) A\$(LEN(A\$)-X+1, LEN(A\$))
DIM A\$(X)	DIM A\$(X*L)
A\$(X)	A\$((X-1)*L+1,X*L)

Where "L" is the maximum length of a string or substring.

If the value of "X" is a constant, then you can simplify the coding:

MID\$(A\$,5,3) is A\$(5,7)  
A\$(5,5+3-1)

or:

A\$(4) is A\$(31,40)  
Assuming "L" = 10  
A\$((4-1)\*10+1,4\*10)

You can also combine LEFT\$,MID\$ and RIGHT\$ with subscripted variables:

LEFT\$(A\$(X),5)

becomes:

A\$((X-1)\*L+1,(X-1)\*L+5)

Any questions? Give me a call!

Don Perkins

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## CALENDAR

What: San Diego Atari Computer Enthusiasts  
Monthly Meeting

When: 6:30 p.m.  
3rd Monday of each month  
- July 18, August 15

Where: North Park Recreational Center  
4044 Idaho Street  
Social Room

Contact: Dick Hiatt, 463-8460 evenings.

What: North County A.C.E.

When: 6:00 p.m.  
3rd Tuesday of each month  
- July 19, August 16

Where: 8081 Mira Mesa Blvd.  
(Church across street and west of Mira Mesa  
Cinemas.)

Contact: Ron Miller, 748-7195

What: North-West County A.C.E.  
Monthly Meeting

When: 9:00 a.m.  
2nd Saturday of each month  
- July 9, August 13

Where: Infotainment Computers

Contact: Rick Reichert, 727-6566

What: Deadline for I/O Connector Newsletter

When: 28th of each month

Where: c/o David Schultz  
4037 Honeycutt Street San Diego, CA 92109

What: John Craig's COMPUTER SWAP AMERICA

When: 10 Sept. 10AM to 6PM

Where: Santa Clara County Fairgrounds, San Jose, Ca.

Admission is \$5.00. Door prizes, auctions and a bit of  
craziness have made this one of the most popular shows  
on the West Coast.

## LIBRARIAN'S REPORT

Well, I see that it's time to take pen in hand and let you know whats happening with the library. I finished the copies of the library for Jim, so now the North County is up to date. Although I still am not sure who has taken over for Nestor in Pacific Beach as yet. If someone knows let me know. The clubs BBS seems well recieved by those that use it, but there have been some questions which I will try to clear up now. If the info on the screen scrolls by to fast for you to read it, try control'S', control'Q' will restart it, if you want to abort a function use control'X'. Some one asked why there is no directory for D4. Reason is that D4 is reserved for uploading programs. Any files that are there are supposed to not be downloadable (is that a word?) until the sysop can look at them. For those of you using a Hayes smartmodem this is for you. When you are done logging off, shut off your modem or the BBS will log you right back on. I don't know why it does that, but it does. If you download any file with a .CRE on the end, ENTER and RUN the file, it will create a basic file.

Did any one attempt the crossword puzzle in the last issue? Well if you got stumped the answers are in this one..... Along with another puzzle.

Well thats about it for me, see you at the next meeting.

ANSWERS: BBS BLUES

```

.....
.      DEBUG      .
.      U B GET    .
.      IF Y      AND .
.      FORTH P    .
.      D C E E E   .
.      COMPUSERVE BBS .
.      S U U O H S A .
.      D END T I DISK A .
.      U N R A A I T .
.      READY ANTIC CLEAR.
.      S V X T E I R .
.      PLAIN      S IF.
.      H L        START W .
.      MODEM      R .
.      R N        P I .
.      HACKER     SAVE T .
.      M E C      RACE .
.      S O        A C R .
.      E O        L O .
.      CONTROL    TERMINAL.
.....

```

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FILL THIS SPACE!!!

BUY / SELL / TRADE Advertisements are **FREE** to non-commercial members of the S.D.A.C.E. Ads must be 25 words or less. Specify the category desired. Only typewritten submission will be printed. (Give my eyes a break!) Mail to **B/S/T, 4037 Honeycutt Street, San Diego, CA 92109. No Phone Calls, Please! Deadline is the 28th.**

### ETC.

#### Announcements:

o Bob Martin tells us that the Astra 1620 2-disk 2-density drives are now available at prices between \$275-\$575, depending on volume ordered.

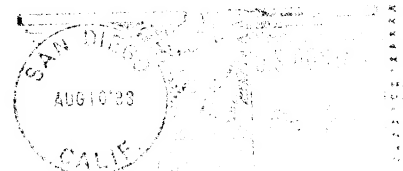
o Synapse is coming out with Syn-Stock. This \$75 stock analysis program is able to download stock figures from CompuServe.

o ATSpeller from APX. Has a 30,000 word dictionary and can check at 3 words per second!

o Consumer Computer is closing out. Look for some good bargains there.

## The I/O Connector

5353 BALTIMORE DR., #39  
LA MESA, CA 92041



### OUR NEXT MEETING,

August 15th, 1983  
6:30 p.m.

North Park Recreation Center  
4044 Idaho Street  
Social Room

LIGHT PEN DEMO  
PROGRAM DEMOS  
(Bring yours)

TO:

STEVE LAWRENCE  
8924 DUNCAN RD.  
SAN DIEGO, CA  
92126